

4.9 NOISE

This section discusses ambient noise levels in the Project vicinity, existing noise sources, noise-sensitive receptors in the vicinity, and local terrain features that may affect noise transmission. Noise generated during the construction and operations of the pipeline Project, and their associated impacts on noise sensitive areas, are addressed.

4.9.1 Environmental Setting

At any location, both the magnitude and frequency of environmental noise may vary considerably over the course of the day. Variation is caused both by changes in the noise source, and by changes in weather conditions. Two measures of the time-varying quality of environmental noise are the 24-hour equivalent sound level ($L_{eq(24)}$), and the L_{dn} . The $L_{eq(24)}$ is the level of steady sound with the equivalent energy as the time-varying sound of concern, averaged over a 24-hour period. The L_{dn} accounts for people's greater sensitivity to nighttime noise by adding 10 decibels of the A-weighted scale (dBA) to the $L_{eq(24)}$. The L_{dn} is applied between the hours of 10 p.m. and 7 a.m.

The Project would occur primarily in rural range, desert, and agricultural areas. Noise sources in rural areas are predominantly natural, including insects, birds, wind, and weather. Accordingly, existing ambient noise levels near most of the pipeline route are low. Background noise levels in wilderness and rural areas typically range between 35 and 45 dBA (L_{dn}). The primary sources of noise in the rural residential and agricultural areas are roadway traffic and farm machinery on a seasonal basis. Background noise levels are approximately 40 dBA in rural residential areas and 45-dBA in agricultural cropland with equipment operating (FERC 2002, EPA 1978).

Noise-sensitive areas include residences, schools and day care facilities, hospitals, long-term care facilities, places of worship, libraries, and parks and recreational areas specifically known for their solitude and tranquility such as wilderness areas. Noise-sensitive receptors near the pipeline route include dispersed ranch and farm residences and low-density residential clusters in and around Stallion Springs, Tehachapi, Mojave, Hinkley, Barstow, Daggett, Ludlow, Amboy, Cadiz, Rice, and Blythe, California, and Ehrenberg, Arizona. Noise-sensitive recreation areas identified along the pipeline route include three BLM Wilderness Areas that parallel the pipeline: Cadiz Dunes Wilderness, Old Woman Mountains Wilderness, and Palen/McCoy Wilderness.

Topography along the route is predominantly flat to gently rolling, except in the Tehachapi Range, where the terrain is steep. Consequently, terrain is unlikely to have any substantive effect on propagation of noise during construction.

4.9.2 Regulatory Setting

Federal

The EPA, the Federal Aviation Administration, the Federal Highway Administration, and the USDOT have developed guidelines for noise. Under the authority of the Noise Control Act of 1972, the EPA established noise emission criteria and testing methods, published at 40 CFR Part 204, which apply to interstate rail carriers and some construction and transportation equipment such as portable air compressors and medium- and heavy-duty trucks.

The Federal government has no enforceable standards or regulations governing environmental noise levels. However, guidelines for the regulation of noise have been issued by the EPA and Occupational Safety and Health Administration (OSHA).

In 1974, the EPA issued guidance levels for the protection of public health and welfare in residential land use areas. The guidance levels specified an outdoor L_{dn} of 55 dBA and an indoor L_{dn} of 45 dBA. These guidance levels are not considered as standards or regulations and were developed without consideration of technical or economic feasibility.

Under the Occupational Safety and Health Act of 1970 (29 USC §1919 et seq.), OSHA has adopted regulations designed to protect workers against the effects of occupational noise exposure. These regulations list permissible noise level exposure as a function of the amount of time during which the worker is exposed. The regulations further specify a hearing conservation program that involves monitoring the noise to which workers are exposed, ensuring that workers are made aware of overexposure to noise, and periodically testing the workers' hearing to detect any degradation.

The Noise Control Act of 1972, as amended by the Quiet Communities Act of 1978, provides a framework for the development of noise control programs through the Quiet Communities Program.

State

The State does not promulgate statewide standards for environmental noise but requires each county to include a noise element in its general plan (California Government Code Section 65302(f)). In addition, Title 4 CCR has guidelines for evaluating the compatibility of various land uses as a function of community noise exposure.

Occupational noise exposure is regulated by California Occupational Safety and Health Administration (Cal-OSHA), which has promulgated Occupational Noise Exposure Regulations (Cal. Code Regs., tit. 8, §§ 5095-5099). These regulations set employee noise exposure limits and are equivalent to the Federal OSHA standards described above.

The California Noise Act of 1973 sets forth a resource network to assist local agencies with legal and technical expertise regarding noise issues. The objective of the act is to encourage the establishment and enforcement of local noise ordinances.

Local

Policies regarding noise are included in the Noise Element of the Kern County General Plan. The major purpose of the Noise Element is to: (1) establish reasonable standards for maximum desired noise levels in Kern County, and; (2) develop an implementation program which could effectively deal with the noise problem. In developing noise standards, the County has used standards suggested by the EPA and California Department of Health in developing the county's noise standards. The Noise Element requires that proposed commercial and industrial uses or operations to be designed or arranged so they would not subject residential or other noise sensitive land uses to exterior noise levels in excess of 65 dB L_{dn} and interior noise levels in excess of 45dB L_{dn} (Kern County 2003).

The San Bernardino County Noise Element has established policies that focus on the prevention of new noise-related land use conflicts by requiring that all relevant development plans, programs, and proposals be reviewed to determine whether such plans, programs, and proposals adequately address noise and its potential effects. When industrial, commercial or other land uses are proposed for areas containing

noise-sensitive land uses, noise levels generated by the proposed use would not exceed 55 dB(A) L_{eq} from 7 am to 10 pm and 45 dB(A) L_{eq} from 10 p.m. to 7 a.m.

Riverside County has various policies regarding noise included in its General Plan. These policies are in large part related to land use because of the effects of noise on sensitive land uses. Stationary source land use noise standards for Riverside County are presented in Table 4.9-1 (Riverside County, 2003).

Table 4.9-1. Stationary Source Land Use Noise Standards

Stationary Source Land Use Noise Standards ¹		
Land Use	Interior Standards	Exterior Standards
<i>Residential</i>		
10:00 pm to 7:00 am	40 L_{eq} (10 minute)	45 L_{eq} (10 minute)
7:00 am to 10:00 pm	55 L_{eq} (10 minute)	65 L_{eq} (10 minute)

4.9.3 Significance Criteria

The CEQA Guidelines (Cal. Code Regs, tit. 14, § 15000 et seq., Appendix G, § XI) explain that a significant adverse effect from noise may exist if a Project would result in:

- exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
- exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels;
- substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project; or

¹ These are only preferred standards, final decision would be made by the Riverside County Planning Department and Office of Public Health.

- substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project.

4.9.4 Impact Analysis and Mitigation

Operational Noise

Noise associated with the operations of the pipeline Project would include repair and maintenance, and periodic inspections of the pipeline ROW from the either walking, driving or flying.

These operation activities would be periodic and noise associated with them would be temporary. Additionally, these activities are similar in nature to operation activities that take place for the existing pipeline. Therefore, operational noise would be less than significant (Class III).

Impact NOI-1: Construction Noise

Construction activities within 500 feet of residences could generate noise levels that exceed county standards (Potentially Significant, Class II).

Noise would be generated during the construction phase of pipeline replacement and realignment and at the 20 permanent aboveground facilities. During construction, work crews would conduct separate but sequential activities, each generally proceeding at rates ranging from several hundred feet to 1 mile per day. Construction activities in any one area could last from a day to 18 weeks. The noise levels from construction equipment at pipeline and aboveground facilities locations are not expected to exceed 78.8 dB(A) at a distance of 100 feet from the construction site (FERC 2002). This level would lead to noise levels of approximately 72.8 dB(A) at 200 feet, 66.8 dB(A) at 400 feet, 60.8 at 800 feet, and 58.8 dB(A) at 1,000 feet. Temporary noise impacts resulting from construction activities generally would be limited to daylight hours, except for 24-hour operations such as hydrotesting.

Residences within 500 feet of the construction location would experience temporary noise levels that exceed the 65 dB(A) exterior standards for Kern, San Bernardino and Riverside Counties. These areas are limited to Stallion Springs, Mountain Meadows, and the vicinity of Tehachapi.

Construction activities would also take place in the vicinity of the Cadiz Wilderness Area and within one half mile of the Palen/McCoy Wilderness Area. These two areas would experience increases in noise above the existing levels (between 35 and 45 dBa (L_{dn})). Mitigation Measure MM REC-1 limits construction in these areas to weekdays during low-use periods. For a further discussion this impact, please refer to Section 4.14, Recreation.

Construction noise could also disturb wildlife with potential impacts occurring during critical life stages (such as nesting or migration). For a discussion of impacts on wildlife species refer to Section 4.2, Biological Resources.

Mitigation for Impact NOI-1:

MM NOI-1. *Limit Construction to Daytime Hours.* *To reduce noise impacts to residences within 500 feet of construction activities, EPNG would limit construction to weekdays and daylight hours except on rare occasions when construction activities may extend beyond daylight hours to allow completion of an activity, such as backfilling an open trench, which could be a safety issue if not completed (Potentially Significant, Class II).*

Rationale for Mitigation

By limiting construction activities to week days and day light hours noise impacts would be reduced during the peak times when outdoor activities take place by residents (weekends) and limited to hours when noise levels are typically louder (daytime versus nighttime).

Table 4.9-2 presents a summary of impacts on air quality and recommended mitigation measures.

Table 4.9-2. Summary of Impacts and Mitigation Measures for Noise

Impact	Mitigation Measure
NOI-1: Construction Noise	NOI-1. Limit Hours of Operation

4.9.5 Cumulative Impacts

In addition to the proposed Project, other projects may contribute to cumulative noise impacts in the vicinity of the proposed Project. Some of the projects potentially contributing to cumulative noise impacts are discussed in Section 5.5, Summary of Cumulative Impacts.

The proposed Project would not permanently add new significant sources of noise. All potential impacts related to noise would result from temporary construction activities. When projects are constructed at the same time, or are timed closely together, they can result in a cumulative impact related to noise. These impacts would be localized. The Project construction activities in the vicinity of other projects are minor and temporary, and are not expected to generate significant noise levels or disturbance. One project at the Cadiz Lateral, the Cadiz Groundwater Storage and Dry-Year Supply Program, has been approved. Although unlikely, it is possible that this Project could be built at the same time as the Cadiz Lateral. No residences or other sensitive receptors are within 1,000 feet of the Cadiz Lateral. Cumulative noise impacts, therefore, would be less than significant.

4.9.6 Alternatives

No Project Alternative

The No Project Alternative would not convert the former All American crude oil pipeline system to a natural gas transmission system. This alternative would not affect noise.

Ehrenberg to Daggett Alternative

The Ehrenberg to Daggett Alternative would not convert the portion of Line 1903 from MP 0 to MP 132.1. This alternative would not introduce noise to the most densely populated areas in the vicinity of the ROW between MP 0 to MP 132.1, although some residences could still be impacted as described in NOI-1.

Ehrenberg to Cadiz Alternative

The Ehrenberg to Cadiz Alternative would not convert the portion of Line 1903 from MP 0 to MP 215.75. This alternative would not introduce noise to the most densely

populated areas in the vicinity of the ROW, all of which are west of Daggett (MP 132.1), although some residences could still be impacted as described in NOI-1.

4.9.7 References

Kern County, June 2003. Kern County General Plan Draft June 2003.

Federal Energy Regulatory Commission, California State Lands Commission February 2002. Draft Environmental Impact Statement/Environmental Impact Report Kern River 2003 Expansion Project.

Riverside County, 2003. County of Riverside General Plan.

San Bernardino County, September 2002. San Bernardino County General Plan, Economic Development and Public Services Group Land Use Services Department, Revised September 10, 2002.

US Environmental Protection Agency (EPA). 1978. Protective Noise Levels. Condensed Version of USEPA Levels Document. USEPA 550/9-79-100. November 1978.